

THE DESCRIPTION OF A NEW SPECIES OF THE
GENUS CEROPALES (HYMENOPTERA: PSAM-
MOCHARIDÆ) WITH A KEY TO THE
SPECIES OF NORTH AMERICA

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The following species in the collection of the Museum of Zoology of the University of Michigan is entirely different than any of the types which the writer has recently studied, does not agree with the description of any of the remaining species and is herewith described as new.

Ceropales floridensis new species.

Holotype female: Ground color black; clypeus, mentum, face below the antennæ a basal band on anterior orbits extending half way between base of antennæ and anterior ocellus, large prominence between and just above the base of antennæ, the anterior half of the first two antennal segments, a tiny spot at base on front edge of third antennal segment, a very narrow line along upper edge on posterior orbits, a broad band on posterior border of pronotum, a quadrate spot on postscutellum, the outer posterior corners of propodeum, and a stripe on the upper front edge of posterior coxæ a very light yellow color; mandibles except tip, posterior half of first two antennal segments, most of front, vertex except ocellar enclosure, the posterior orbits except as noted below, all the pronotum except the broad posterior yellow border, the tegulæ, all the propodeum except a broad transverse basal band on dorsal surface which is black, most of the dorsal surface of first abdominal segment, and all the legs, including coxæ, a light red color; the ocellar triangle with the surface surrounding it at sides and front, a large spot on each side behind the head on posterior orbits, the surface just behind the mandibles on posterior orbits, the tips of mandibles, the antennæ except as noted above, black; when seen from in front the ocellar triangle shows up as a very noticeable prominence, with rather prominent golden hairs borne on the whole vertex, the anterior ocellus much less than its diameter from the lateral ocelli, and these in turn separated from each other by about their distance from the eye margins; the ventral surface of thorax as well as the ventral surface of the coxæ very loosely covered with fine, closely appressed, sericeous pubescence, which also covers about the lower half of the sides of thorax; no sericeous hairs on the upper half of dorsum, but these surfaces with light golden hairs much fewer in number, upright and not very long, but the ones on sides of scutellum and postscutellum are rather long; the

abdomen with no upright hair but with closely appressed fine hair which becomes slightly longer and more prominent near apex; wings deep black; the extreme bases of second, third and fourth posterior tarsal joints black as well as the arolæ of all the legs.

Length:—Head and thorax 7.25 mm., abdomen 7.25 mm., fore wing 12.25 mm., rear wing 9.4 mm.

Holotype female; Gainesville, Alachua Co., Fla., May 4, 1923. (Alexander-Walker) Museum of Zoology, Univ. of Mich., Ann Arbor, Mich.

In the key for this genus as given by Fox not all the species known at present are included. The following key is presented in the hope that it will enable a worker to determine all the species of the genus. Four species *C. fumipennis* Cam., *C. chiriquensis* Cam. from Panama, and *C. apicipennis* Cam. and *C. azteca* Cam. from Mexico were not seen but were included from the descriptions and color plates, as given in reference 2

Key to the Species of Genus *Ceropales* Latreille

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|---|--|
| 1. Females | 2 |
| 1. Males | 19 |
| 2. Body entirely black, at the most with a white spot on the postscutellum and the posterior outer angles of propodeum and the anterior orbits with a white line | 3 |
| 2. Body more or less ornamented with white, red or yellow. | 5 |
| 3. All the femur black | <i>nigripes</i> Cresson |
| 3. Some of the femur reddish or reddish yellow | 4 |
| 4. Only the posterior femur reddish | <i>bipunctata</i> Say |
| 4. First two pairs of femur reddish yellow as well as the posterior trochanters and tibiæ | <i>bipunctata</i> v. <i>tibialis</i> Banks |
| 5. At least the abdomen with a considerable amount of reddish | 6 |
| 5. Body ornamented with white or yellow | 11 |
| 6. Some red on head or thorax, abdomen may have some yellowish markings | 9 |
| 6. Head and thorax black | 7 |
| 7. Dorsum strongly punctured; wings hyaline except at apex <i>agilis</i> Smith | |
| 7. Dorsum and sides of thorax glabrous, impunctate, and highly polished; wings fuliginous with a hyaline spot at apex | 8 |
| 8. Antennæ entirely black; stigma of fore wings dark brown like rest of wing | <i>robinsonii</i> Cresson |
| 8. Basal half of antennæ reddish or yellowish, only the apical half black; stigma of fore wings clear yellow; marginal and discoidal cells longer than in preceding, and more of the tip of wing hyaline. | |
| | <i>robinsonii</i> v. <i>stigmatica</i> Viereck |

9. Entirely reddish all over with yellow markings on posterior edge of abdominal segments, posterior edge of prothorax, and on face. *elegans* Cresson
9. Not entirely reddish all over 10
10. Vertex and sides of thorax black; antennæ reaching beyond scutellum *cressoni* Fox
10. Vertex, sides and dorsal surface of propodeum reddish; abdomen entirely black except a small amount of ferrugineous on first abdominal segment *floridensis* n. sp.
11. First, third, fourth and fifth abdominal segments entirely yellow, the second with one half of its surface black; propodeum with a very short median sulcus *stretchi* Fox
11. Abdomen not marked as above 12
12. Abdomen entirely black, except the first segment may be marked with obscure ferrugineous *clypeatus* Cresson
12. Abdomen with segments marked with whitish or yellowish in much greater amount than in above 13
13. Propodeum with a very short median sulcus or with none 14
13. Propodeum with a long distinct median furrow 16
14. First abdominal segment with the apical margin pale yellowish; posterior surface of propodeum very much excavated, concave each side of center; third cubital cell dark yellow *fulvipes* Cresson
14. First abdominal segment with a large yellow spot or elongate yellowish line on each side; posterior surface of propodeum flat 15
15. The yellow posterior margins of the tergites interrupted medially, and broadly emarginate each side and enlarged at their lateral ends into a large ovate spot; third cubital cell dark yellow; first tergite with a large yellow spot each side; legs ferrugineous *longipes* Smith
15. The yellow posterior margins of tergites not interrupted medially and of about even width throughout; the first tergite with a rather long narrow yellowish line crosswise of segment slightly before the posterior margin; legs mostly dark *fraterna* Smith
16. White lateral marks on abdominal segments, without continuous fasciæ; at least posterior femur, except base, reddish 17
16. Abdominal tergites two to five with continuous fasciæ on posterior edges 18
17. All abdominal segments with a lateral sublunate, white mark on apical margin; a yellow spot on anterior coxæ and the tips of the four posterior coxæ; face, mesopleura, and propodeum silvery; second cubital cell almost quadrate *femoralis* Cresson
17. Only the first four abdominal segments with white lateral marks and these not sublunate; no yellow on coxæ; posterior face of propodeum and posterior coxæ with dense silvery pile, which is absent from rest of body *foxii* Rohwer

18. First abdominal tergite without an apical fasciæ, but with a spot each side; second tergite with the fasciæ interrupted in the middle; propodeal sulcus extra long *cubensis* Cresson
18. First abdominal segment with an apical fasciæ and with an additional mark each side; second cubital cell longer than broad 19
19. Tips of femur, anterior tibiæ in front, base and apex of middle tibiæ, and base of four anterior tibiæ lemon-yellow; apex of propodeum with golden sericeous pile *mexicana* Cresson
19. Parts of legs mentioned above reddish; apex of propodeum with silvery pile *azteca* Cameron
20. Wings fuliginous, size large for the most part 21
20. Wings hyaline 25
21. Abdomen entirely black, posterior femur reddish 22
21. Abdomen with considerable whitish or yellowish color 23
22. Only the posterior femur reddish *bipunctata* Say
22. The posterior tibiæ as well as posterior femur reddish.
bipunctata tibialis Banks
23. The whole insect yellow; antennæ yellow except the last three joints which are black; sulcus on propodeum long and deep; third cubital cell half as long on marginal vein as on the cubital vein.
quaintencii Viereck
23. Whole insect not yellowish, mostly black 24
24. Only the last apical segment white; coxæ and femur densely covered with white hair, the tibiæ and tarsi with black hair; the abdomen shining *fumipennis* Cameron
24. The three apical segments of abdomen white *nigripes* Cresson
25. The abdomen with some reddish color 26
25. Abdomen marked with white or yellow 29
26. Head and thorax black 27
26. Some red color on head and thorax 28
27. Dorsum strongly punctured; apex of wings blackish *agilis* Smith
27. Dorsum and sides of thorax glabrous, impunctate, polished, and shining *robinsoni* Cresson
28. Entirely reddish all over, with yellow markings on posterior edges of abdominal segments, posterior edge of pronotum, and on face.
elegans Cresson
28. Not entirely reddish all over *cressoni* Fox
29. Abdominal segments with the apical margins with continuous bands, except the first may be interrupted in the middle 30
29. Abdominal segments with the apical bands interrupted in the middle or some of the tergites without maculations 35
30. Antennæ shorter than the head and thorax together; propodeum, except base and extreme sides, rugose; the band on first abdominal segment broadly interrupted *fulvipes* Cresson
30. Not with the above assemblage of characters 31

31. Propodeum with a deep sulcus medially; legs, except the coxæ, sometimes reddish 32
31. Propodeum without a deep sulcus medially; femur, except apex, nearly always black 33
32. Front with a rather strong pit in the middle; vertex and propotum impunctate; abdomen glabrous, the first segment with a large spot each side *albopicta* Cresson
32. Front with a medial impressed line; vertex and pronotum with sparse strong punctures; first abdominal segment with an irregular mark each side *mexicana* Cresson
33. Propodeum granular and posterior face transversely aciculate-granular; third cubital cell twice as long on the cubital vein as the second cubital cell, and but little shorter on the marginal vein than the second; yellow markings not so profuse as in the following.
minima Provancher
33. Propodeum hardly granular and the posterior face with only a faint indication of transverse acicular markings; third cubital cell one and one half times as long as the second cubital cell on the cubital vein and only two thirds as long on the marginal vein as the second; more yellow on the abdomen than the preceding species 34
34. First abdominal segment with the yellow margin interrupted in middle and the second with the yellow spical margin of about even width over the whole length *fraterna* Smith
34. First abdominal segment with its yellow margin deeply emarginate above in the middle but not interrupted, the yellow apical band on second segment also deeply emarginate in the middle.
fraterna occidentalis Cockerell
35. Maculations on third and seventh tergites only 36
35. Maculations on other tergites as well as third and seventh 37
36. Two large marks on the third tergite, the apical segment, a line on pronotum behind, and the clypeus, white; head shining and closely punctured; longest spur of hind tibiæ reaches to the fourth tarsal joint from the end of leg; a cloud over the basal veins; marginal cell extending much beyond the third cubital cell *quiriquensis* Cameron
36. A continuous whole band on second tergite, and clypeus white only on the sides; longer spur of hind tibiæ only one half the length of posterior metatarsal joint; no cloud over the basal veins; marginal cell does not extend beyond the end of third cubital cell.
apicipennis Cameron
37. Front with rather a strong pit in the middle; face, clypeus and thorax densely clothed with a silvery pile; head and thorax subopaque.
cubensis Cresson
37. Front with a medial impressed line 38
38. Face and clypeus black, front with distinct, separated punctates; abdominal segments with a lateral pale yellow spot *femoralis* Cresson
38. Face and clypeus yellow 39

39. Cross bands of abdominal segments narrowly interrupted in the middle, legs yellow, hind tarsi with each joint narrowly black at base; length about 7 mm. *longipes* Smith
39. Crossbands widely separated in the middle, hind tarsi dusky; length about 5 mm. 40
40. Femur rufous *foxi* Rohwer
40. Femur black *hatoda* Brimley

References

- CAMERON, PETER. Biol. Centr. Amer., 34, II, 1888-1890, pp. 158-161.
- FOX, W. J. Trans. Amer. Ent. Soc., XIX, 1892, pp. 49-63.

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